Houghton Area Master Plan Project
Citizen's Review Committee
November 19, 2003 Meeting Summary

Members present: Dale Calvert, Sarah Craighead, Sheila Enos, Margaret Fowler, Margie Hildebrand, Sandi Jacobson, Lex McGraw, Linda Morales, Suzanne Miles, Cathy Rex, Frank Salbego, Phil Swaim, Michael Tone

Members absent: Ken Abrahams, Peter Backus, Suzanne Bott, Brent Davis, Mark Frederickson, John Grabo, Curtis Lueck, Carl Maass, John Macko, Peggy Nolty, Tony Novelli, Thomas Sayler-Brown, Ray Schneider, Roy Schoonover, Betty/James Shinn, Jeff Simms, Michelle Zimmerman, Frank Wilczek

Interested Parties: Dwight Bailey, Joe Yee

TAT members present: Frank Sousa

Introduction

Facilitator Freda Johnson convened the meeting at 5:50 PM. She reviewed ground rules and led a round of introductions. The summary of the previous meeting was approved without change. She briefly reviewed the packet of information that had been mailed out to members, including maps and Existing Conditions information. She said that the purpose of the meeting was for the CRC to understand the nature of floodplains in the HAMP so that the next steps in the planning process could be taken. She introduced Frank Sousa as presenter, from the Stormwater Section of City of Tucson Department of Transportation. Frank used a power point system to illustrate conditions in the HAMP. He said that he could show areas in great detail because all the City maps were digitized and he had access to several layers of information. He invited questions during the presentation.

Frank briefly described several sources of information that had been compiled to create the information packet provided to the CRC in advance of the meeting. These included a 1998 Tucson Watershed Modeling System, which is a flow rate modeling system. The project has an advanced computer program that integrates this information and can create models and predictions very quickly for analysis and comparison. A watershed model illustrates how deep and how fast water flows over an area during rain. Distributary flow is when water spreads over a broad area and moves slowly. When water collects in a wash or ditch it speeds up. A shallow, wide flow supports more desert vegetation because it soaks in to the soil.

The 100 Year Flood is a standard for regulatory purposes. It indicates the height water would reach in floods (such as in 1983) that occur on a statistical average of every 100 years. Developments can be built in flood plains, but there are restrictions that address the impact on other areas. The requirement is that the development can't affect flow in another area. There is

also a 0.2% chance of a "biblical flood", but this chance is so negligible that the CRC doesn't need to be concerned about it for purposes of planning in the HAMP.

Frank explained the different types of basins: "retention basins" catch and hold water, and allow it to soak into the soil; "detention basins" catch water temporarily and allow it to slowly escape. Detention basins slow the flow and prolong it. There is also the concept of "offsetting volumes", in which if a hole is dug in one area and a mound created in an adjacent area, the net effect is unchanged. This concept can be applied to pavemented areas – a paved area must be balanced by detention or retention to prevent erosion, flooding or other effects.

Frank said that a park or field can serve as a large retention basin if properly planned. It must drain in 24 hours to prevent mosquito breeding and other problems. Regional basins like this will be important to incorporate into the HAMP. Basins can be placed "off line" – to the side of a wash or flow. They would fill up during rain, but still allow water flow along normal routes. The type of soil also affects whether water can soak in or not.

In response to a question, Frank said that at its peak the Pantano Wash in HAMP can carry 31,000 cubic feet of water. Floodplain regulations dictate a 50 foot set-back on each side of the wash, which can be used for a river park.

The Desert Willow development was examined in how it dealt with the shallow-flow area it was built in. The wash was redirected to be more contained, rather than spread out, and put in a channel on the east side of the development. This created a faster, deeper channel, which could cause erosion, however it connected sections of the wash and preserved it while allowing development. This channel is 200 to 500 feet wide.

Frank presented Figure 5 dealing with Riparian Habitats. Although most of HAMP seems nearly flat to the eye, it does have topography and distinct habitats. These are mainly tree-lined washes, grassy swales, and higher flat areas covered by creosote. The elevation difference may be no more than 2 feet. According to Frank, there is a bias against the value of this habitat because there are few trees. Much of the vegetation is acacia and shrubs, and the land is heavily overgrazed and eroded. There are three codes protecting the wash areas, as described in the handouts: Floodplain, WASH Ordinance, and ERZ or Environmental Resource Zone. There are often no "banks" in the area but 100 Year Flood regulations do apply. The grassy tobosa swales generally fall into the 100 Year Floodplain. The habitat can be preserved through floodplain protection. Frank explained that the ERZ encompasses the entire floodplain.

Frank presented a picture of a cattle tank or stock pond – an artificially created catchment pond along a wash. The surrounding area was barren of any vegetation. However further downstream the habitat gradually recovered. The land is currently leased for grazing, and the cattle will stay until the land is sold for other purposes.

Frank stated the floodwater management is a big issue politically as well as environmentally right now, and the Mayor and Council are concerned about it. Previous city policies have not worked well, and small retention basins have not been very effective. For example, slowing the

flow of a flood can actually create more problems by extending the drainage time and creating a bigger "head" of water downstream.

Frank Salbego asked if the "best of the brains" were addressing this issue. Frank Souza responded that the information and models presented represented a lot of professional input, for example from the University of Arizona, the Harris Survey biome mapping, the Shaw map, etc. This data was used to determine areas to recommend for preservation.

Linda Morales reminded the group of the City of Tucson's Stormwater Advisory Committee, a group that addresses stormwater management in the City of Tucson. She advised that the CRC focus on overall, general drainage planning, and that the details of specific projects be left to developers and the City.

Break

The CRC resumed after a break. A question was asked regarding what the CRC was asked to do at this point. Frank and Mike W. clarified that the CRC needs to balance development needs against natural preservation. The staff have done the homework and made recommendations. There are current regulations but they need to be strengthened and unified into a code. Cathy Rex asked what the definition of preservation was. Frank responded that it was hard to define but it helps to think that the envelope of habitats needs to be defined. Cathy asked if the CRC could define preservation for the purposes of HAMP. Michael W. pointed out that this was an opportunity to create a structure for HAMP with "extra teeth". The HAMP plan will direct development and influence roadway and utility placement.

There were questions of how much area is recommended for development by staff, also what does the State Land Department recommend, and will the Mayor and Council follow the guidelines. Some members of the CRC wanted to know what percent of the land is actually developable, and if we could look at similar developments for comparison. The question was posed: how can the HAMP be made desirable for development while emphasizing preservation.

Dale Calvert proposed that the CRC support habitat preservation as presented in the Figure 7 Map, and then feedback should be obtained from the State Land Dept and developers. Michael Tone proposed that a unified code for wash and floodplain be created, starting from the broadest preservation perspective, and then see how it is received. Cathy Rex suggested creating levels of preservation priority, to leave some room for negotiation. In further conversation there was general agreement about and strong support for Dale's proposal that the CRC recommend Figure 7 as the basis for future discussion. A reminder was made about what was learned from Timothy Rood's presentation to the CRC on sustainable developments in riparian habitats. Copies of Rood's presentation were distributed to the CRC in the past.

Closing

Michael Wyneken summarized that the CRC generally agreed with the models and recommendations of staff, especially as represented by Figure 7. Since there was no time left for questions or comments on the Existing Conditions information packet, he asked that members

email him, and discussion would occur next meeting. The next meeting was set as announced on Dec. 9 from 5:30 to 8:30 PM at the same location. There would be more review of drainage information, including percentages of developable land, and draft policies to review. There will be a mailing before the next meeting.

Some members requested that there be no rehashing of previous topics from absent members. Michael Tone asked about taking photos of the HAMP land for historical documentation, because it won't look the same in 50 years. He asked if the City could do anything on this.

The meeting closed at 8:30 PM.